

**Technical Exhibit**

**Minor Modification of Licensed Facility**

This application complies with all engineering standards and assignment requirements specified in the applicable FCC rules and regulations. A new site is specified as is indicated below:

	Minor modification of licensed facility
Channel / Class	216 D
Geographical Coordinates (NAD 83)	34 12 47.9 118 03 44.3
ASRN	1213941
Site elevation	1654.5 m
Tower AGL	60.9 m
Antenna COR AGL	14.0 m
Antenna COR AMSL	1668.5 m
HAAT	892.5 m
ERP	0.099 kW (H&V, DA)
Antenna	Scala CA5-FM/CP/1
Terrain database	FCC 30 second

**Technical Exhibit**

**Tabulation of HAAT / ERP / distance to 60 & 70 dBu contours**

CH 216      34 12 47.9 / 118 03 44.3      0.099 kW ERP (H&V, DA)      1668.5 m COR AMSL      892.5 m HAAT

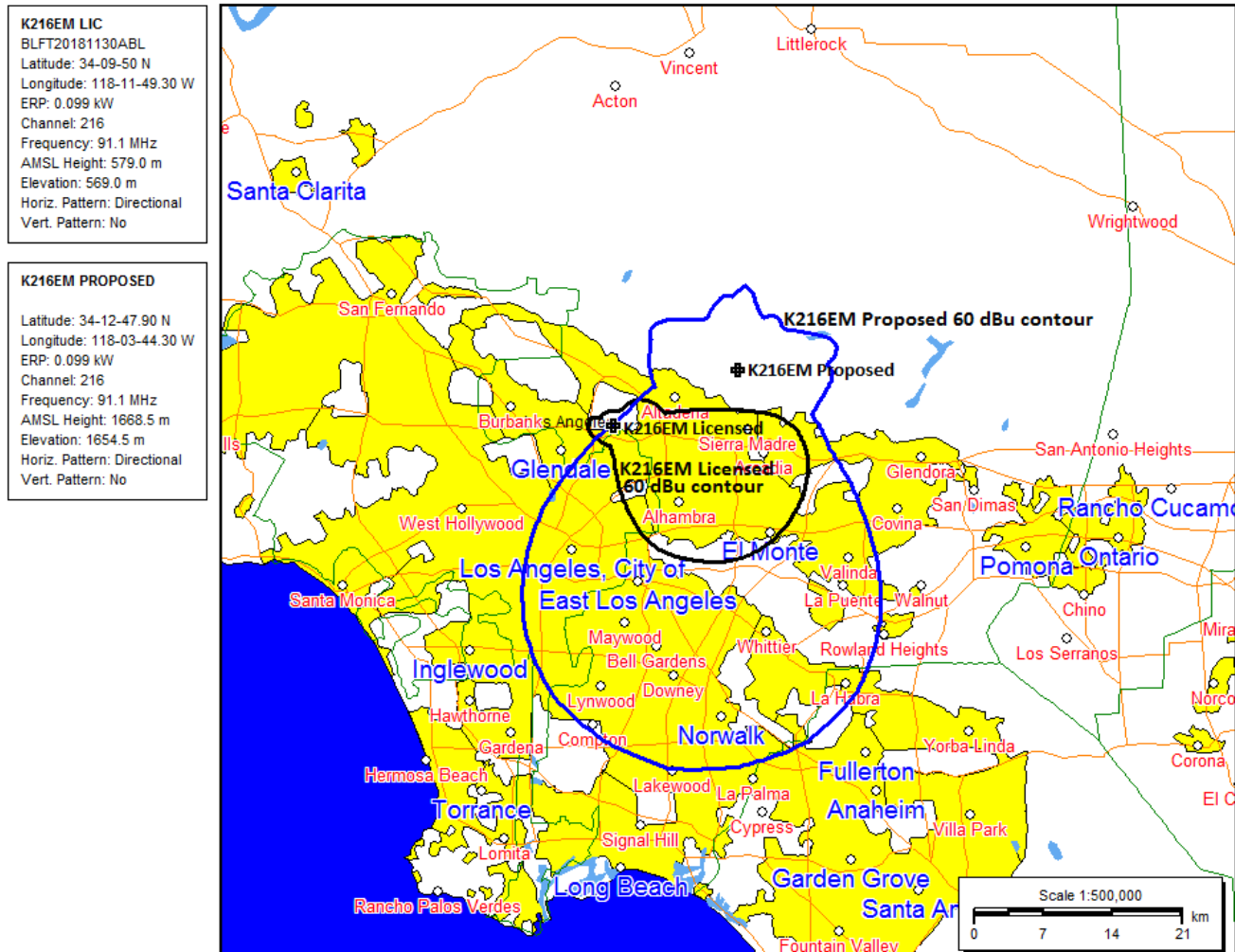
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	1298.3	370.2	0.0033	-24.84	0.182	8.06
010	1332.8	335.7	0.0037	-24.33	0.193	8.03
020	1454.3	214.2	0.0033	-24.84	0.182	6.29
030	1401.3	267.2	0.0025	-25.96	0.160	6.46
040	1298.2	370.3	0.0018	-27.44	0.135	6.53
050	1217.2	451.3	0.0015	-28.25	0.123	6.45
060	1039.3	629.2	0.0019	-27.12	0.140	7.80
070	868.4	800.1	0.0029	-25.38	0.171	9.71
080	1007.6	660.9	0.0035	-24.61	0.187	9.91
090	1067.7	600.8	0.0032	-24.89	0.181	9.40
100	857.6	810.9	0.0024	-26.13	0.157	9.08
110	705.7	962.8	0.0020	-27.00	0.142	8.63
120	492.2	1176.3	0.0018	-27.50	0.134	8.47
130	328.2	1340.3	0.0036	-24.47	0.190	11.81
140	263.7	1404.8	0.0107	-19.70	0.329	19.95
150	226.9	1441.6	0.0276	-15.59	0.528	28.41
160	202.2	1466.3	0.0510	-12.92	0.718	34.25
170	197.8	1470.7	0.0742	-11.29	0.866	37.73
180	199.2	1469.3	0.0897	-10.47	0.952	39.45
190	210.0	1458.5	0.0990	-10.04	1.000	40.24
200	222.4	1446.1	0.0897	-10.47	0.952	39.20
210	243.1	1425.4	0.0742	-11.29	0.866	37.23
220	287.1	1381.4	0.0510	-12.92	0.718	33.24
230	313.0	1355.5	0.0276	-15.59	0.528	27.43
240	356.0	1312.5	0.0107	-19.70	0.329	19.33
250	421.6	1246.9	0.0036	-24.47	0.190	11.71
260	497.4	1171.1	0.0018	-27.50	0.134	8.46
270	618.6	1049.9	0.0020	-27.00	0.142	8.77
280	870.3	798.2	0.0024	-26.13	0.157	9.05
290	1087.6	580.9	0.0032	-24.89	0.181	9.30
300	1090.7	577.8	0.0035	-24.61	0.187	9.49
310	1251.7	416.8	0.0029	-25.38	0.171	8.07
320	1263.3	405.2	0.0019	-27.12	0.140	6.88
330	1279.0	389.5	0.0015	-28.25	0.123	6.20
340	1195.1	473.4	0.0018	-27.44	0.135	7.02
350	1243.4	425.1	0.0025	-25.96	0.160	7.74

FCC 30 second Terrain Data  
 (yellow highlighted values establish average HAAT)

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**Licensed and proposed 60 dBu contour coverage map**

The proposed 60 dBu contour will continue to overlap the licensed 60 dBu contour.



# **Technical Exhibit**

## **Allocation Study**

CH 216 34 12 47.9 / 118 03 44.3 0.099 kW ERP (H&V, DA) 1668.5 m COR AMSL 892.5 m HAAT

CH	CALL	TYPE	AZI.	DIST	LAT.	Pwr (kW)	INT (km)	PRO (km)	*IN*	*OUT*
CITY		STATE	<--	FILE #	LNG.	HAAT (M)	COR (M)	LICENSEE	(Overlap in km)	

### **Reference station:**

216D	K216EM	LIC	246.1	13.55	34 09 50.0	0.099			---	Reference---
Arcadia		CA	66.0	BLFT20181130ABL	118 11 49.3		579			Educational Media Foundation

### **Co-channel, 1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup> channel relationships:**

214B	KPFK	LIC	342.4	1.84	34 13 45.0	110.000	21.8	114.7	-27.2	-112.9
Los Angeles		CA	162.4	BMLD20080410AAA	118 04 06.2	863	1762			Pacifica Foundation, Inc.
214D	KPFK-FM1	LIC	254.6	57.07	34 04 32.0	1.500	0.1	6.1	33.8	50.0
Malibu		CA	74.3	BLFTB20110929ASW	118 39 35.3		860			Pacifica Foundation, Inc.
216B1	KKLP	CP	112.3	110.65	33 49 49.1	0.285	98.5	35.0	-8.7	30.6
Perris		CA	292.9	BPED20181231ABD	116 57 14.1	464	1161			Educational Media Foundation
216A	KKLP	LIC	112.3	110.65	33 49 49.2	0.200	92.6	31.5	-2.8	34.3
Perris		CA	292.9	BLED20150109AAY	116 57 14.1	450	1146			Educational Media Foundation
216D	K216FA	LIC	337.1	40.33	34 32 50.9	0.010	5.8	0.7	27.1	7.5
Quartz Hill		CA	157.0	BMLFT20150610AAQ	118 14 00.2	623	1586			Calvary Chapel Of Twin Falls
216D	K216FM	LIC	230.2	36.08	34 00 19.0	0.250	46.4	7.2	-39.9	-73.7
Inglewood		CA	50.0	BLFT20181012AAZ	118 21 47.3		162			Educational Media Foundation

K216EM will have prohibited overlap with K216EM, co-owned by Educational Media Foundation ("EMF"). In order to eliminate the overlap, EMF certifies that upon the filing of the license application of K216EM as proposed in this application the license for K216FM will be surrendered.

216B	KDSC	LIC	282.5	105.64	34 24 46.9	4.800	142.2	58.4	-50.9	1.1
Thousand Oaks		CA	101.8	BMLD20030717ABP	119 11 13.3	390	879			University Of Southern Cal
217B	KWTH	LIC	69.6	139.97	34 38 38.9	1.550	77.2	51.6	52.7	70.9
Barstow		CA	250.4	BLED20060106ABX	116 37 41.0	700	1838			Calvary Chapel Of Costa Mesa
217B	KFRB	LIC	335.8	149.56	35 26 16.8	2.800	67.8	41.4	74.4	89.1
Bakersfield		CA	155.4	BLED20050815AAD	118 44 25.3	417	1132			Family Stations, Inc.
218D	KUSC-FM1	LIC	284.8	51.07	34 19 47.0	0.200	0.2	11.9	39.5	33.2
Santa Clarita		CA	104.5	BLFTB20070920AAC	118 36 00.3		1140			University Of Southern Cal
218B	KUSC	LIC	0.0	0.00	34 12 48.0	39.000	12.3	101.4	-20.3	-101.5
Los Angeles		CA	223.4	BLED20000404ABH	118 03 44.2	891	1689			University Of Southern Cal
219D	K219DK	LIC	57.7	83.44	34 36 44.0	0.010	0.2	11.8	73.6	71.6
Victorville		CA	238.1	BLFT19980731TE	117 17 30.2	430	1333			The Association For Commun

### **I.F.:**

None

### **International (Mexico) Compliance:**

K216EM as proposed is located 205.7 km from the Mexican border and is in full compliance with the requirements of Section 74.1235(d) of the Commission's rules in that it is fully spaced to all Mexican facilities and the proposed 60 dBu contour will not be within 116.3 km of the Mexican border.

FCC 30 second terrain database

**Technical Exhibit**

**Allocation Study**

KDSC (LIC)	K216EM (PROPOSED)
CH 216B	CH 216D
4.8 kW ERP	0.099 kW ERP
879 m COR AMSL	1668.5 m COR AMSL
34 24 46.9 / 119 11 13.3`	34 12 47.9 / 118 03 44.3

Protected 60 dBu

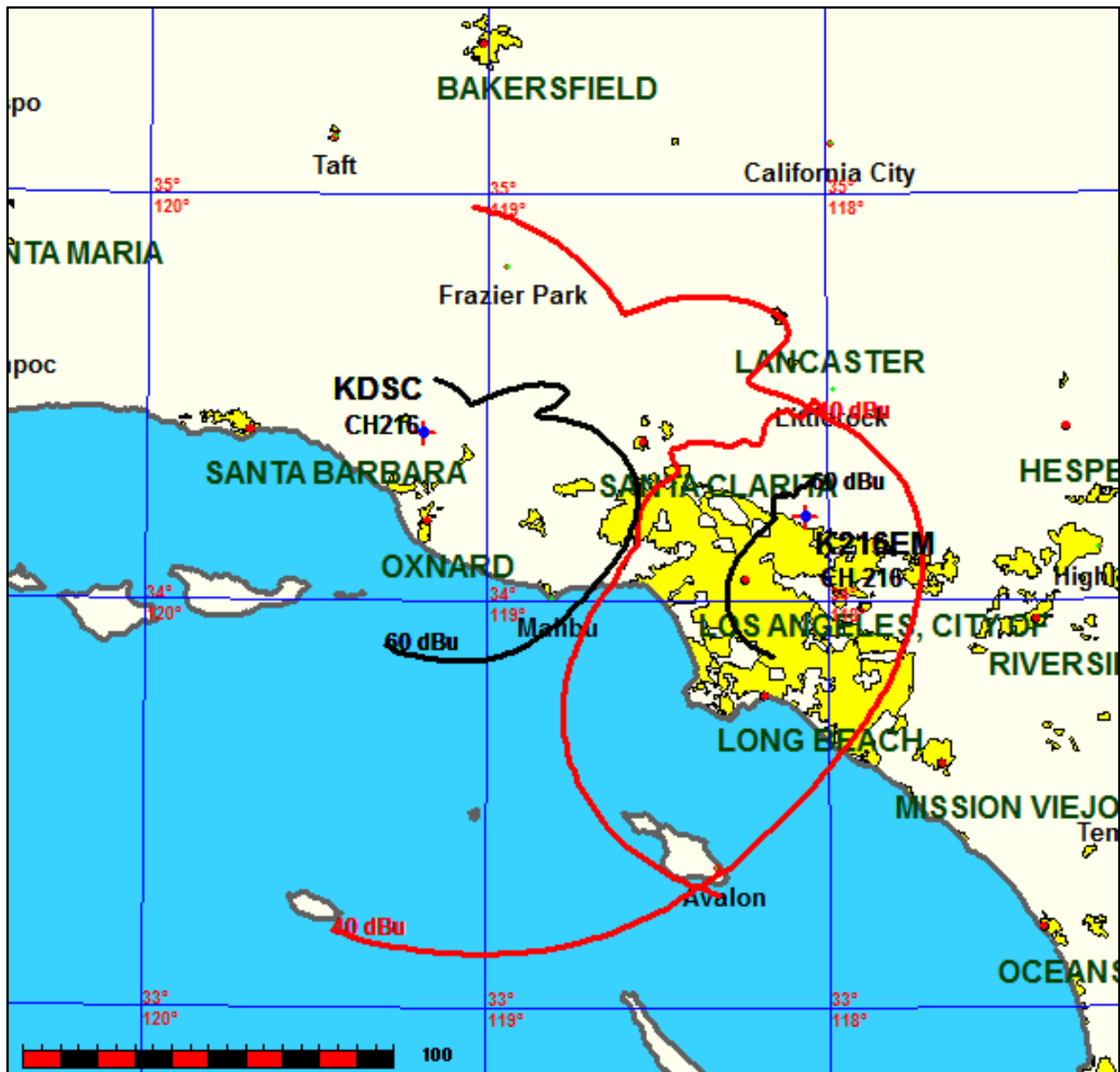
Interfering 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
105.0	004.8000	0597.3	059.9	278.3	000.0024	0861.7	045.9	38.60
106.0	004.8000	0607.6	060.3	276.9	000.0023	0900.6	045.7	38.96
107.0	004.8000	0615.6	060.6	275.6	000.0022	0936.3	045.6	39.19
108.0	004.8000	0622.3	060.8	274.2	000.0022	0967.0	045.6	39.34
109.0	004.8000	0628.4	061.1	272.8	000.0021	0996.2	045.7	39.47
110.0	004.8000	0634.0	061.3	271.5	000.0021	1025.3	045.8	39.54
111.0	004.8000	0639.2	061.4	270.2	000.0020	1051.4	046.0	39.55
112.0	004.8000	0643.4	061.6	268.9	000.0020	1076.5	046.3	39.57
113.0	004.8000	0646.5	061.7	267.6	000.0019	1099.9	046.7	39.57
114.0	004.8000	0648.8	061.8	266.4	000.0019	1118.1	047.1	39.52
115.0	004.8000	0651.4	061.9	265.2	000.0019	1132.6	047.5	39.39
116.0	004.8000	0655.5	062.0	264.0	000.0019	1145.7	048.0	39.25
117.0	004.8000	0659.5	062.2	262.8	000.0018	1155.7	048.5	39.09
118.0	004.8000	0663.2	062.3	261.7	000.0018	1163.0	049.0	38.93
119.0	004.8000	0666.6	062.4	260.6	000.0018	1169.8	049.6	38.70
120.0	004.8000	0668.8	062.5	259.6	000.0018	1176.8	050.2	38.63
121.0	004.8000	0669.0	062.5	258.7	000.0020	1183.8	050.9	38.75
122.0	004.8000	0668.1	062.5	257.8	000.0021	1189.1	051.7	38.77
123.0	004.8000	0667.2	062.4	257.0	000.0023	1192.9	052.5	38.80
124.0	004.8000	0666.2	062.4	256.2	000.0024	1195.6	053.4	38.74
125.0	004.8000	0665.1	062.4	255.5	000.0025	1198.8	054.2	38.69
126.0	004.8000	0664.4	062.3	254.8	000.0026	1202.8	055.1	38.64

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**Allocation Study**

Below is a map showing the lack of prohibited overlap of the 40 dBu interference contour of K216EM as proposed to the protected 60 dBu contour of KDSC (LIC).



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**Allocation Study**

W282BI as proposed is located within the protected contour of the following second adjacent stations:

KPFK (LIC), CH 214B, Los Angeles, CA

KPFK signal strength at the K216EM site	121.9 dBu
K216EM interference contour	161.9 dBu
Distance to K216EM interference contour	0.6 meters

KUSC (LIC), CH 218B, Los Angeles, CA

KUSC signal strength at the K216EM site	122.4 dBu
K216EM interference contour	162.4dBu
Distance to K216EM interference contour	0.5 meters

K216EM's interference contour to KPFK will extend out 0.6 meters and to KUSC 0.5 meters. K216FM's antenna will be 14 meters above ground level, resulting in the interference contour not reaching the ground by a margin of at least 13.4 meters. Therefore based on the showing of no population within the area of predicted interference a waiver of Section 74.1204(d) is respectfully requested.



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**CH 6 Protection**

Per Section 74.1205(a) of the Commission's rules, the required study distance for FM Channel 216 is 133 km. There are no TV channel 6 broadcast stations within 133 km of K216EM as proposed. K216EM is therefore in full compliance with TV Channel 6 broadcast station protection requirements.



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**Environmental Impact & RFR Compliance Statement**

K216EM will be located at an established communications site that is in compliance with all environmental impact requirements.

This minor modification application specifies a move to a new site. K216EM as proposed will operate at an antenna COR AGL height of 14.0 meters with 0.099 kW ERP (H&V, DA). For a worst case estimation at 2 meters above ground level the RFR is no more than 23.0% of the general population/uncontrolled MPE limit. There are other broadcast facilities at the site.

Per Section 1.1307(b)(1) Table 1, any Part 74 Subpart L facility with an ERP of 100 watts or less is categorically excluded from environmental evaluation, therefore K216EM as proposed is in compliance with all RFR requirements.

RFR hazard warning signs will be posted at the site and the site has restricted access to only authorized personnel. The applicant certifies that in cooperation with other users of the site all authorized personnel will be protected from RFR exposure in excess of FCC guidelines while accessing any controlled exposure area, including the tower, by either reducing power or ceasing operations.